

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**ORDER OF THE SUPERVISOR OF WELLS**

IN THE MATTER OF

THE PETITION OF WHITING OIL & GAS CORPORATION	)	
FOR AN ORDER FROM THE SUPERVISOR OF WELLS	)	
ESTABLISHING A 640-ACRE GLENWOOD FORMATION/	)	
PRAIRIE DU CHIEN GROUP DRILLING UNIT CONSISTENT	)	CAUSE NO. 02-2011
WITH SPECIAL ORDER NO. 1-86 BY COMPULSORY	)	
POOLING ALL INTERESTS INTO THE UNIT LOCATED IN	)	
RIVERSIDE TOWNSHIP, MISSAUKEE COUNTY,	)	
MICHIGAN.	)	

**OPINION AND ORDER**

This case involves the Petition of Whiting Oil and Gas Corporation (Petitioner). The Petitioner proposes to drill and complete a well for oil and gas exploration (the Riverside 32-24 well) within a drilling unit in the stratigraphic intervals known as the Glenwood Formation/Prairie du Chien Group. Under Special Order No. 1-86, the drilling unit size for a Glenwood Formation/Prairie du Chien Group well is 640 acres, more or less. Since not all of the mineral owners within the proposed drilling unit have agreed to voluntarily pool their interests, the Petitioner seeks an Order of the Supervisor of Wells (Supervisor) designating the Petitioner as operator of a drilling unit consisting of four contiguous governmental surveyed quarter sections and requiring compulsory pooling of all tracts and interests within that geographic area for which the owners have not agreed to voluntary pooling.

**Jurisdiction**

The development of oil and gas in this State is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. MCL 324.61501 *et seq.* The purpose of Part 615 is to ensure the orderly development and production of the oil and gas resources of this State. MCL 324.61502. To that end, the Supervisor may establish drilling units and compulsorily pool mineral interests within said units. MCL 324.61513(2) and (4). However, the formation of drilling units by compulsory pooling of interests can only be

effectuated after an evidentiary hearing. 1996 MR 9, R 324.302 and R 324.304. The evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq.* See 1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on March 15, 2011.

### **FINDINGS OF FACT**

The Petitioner specifically requests that the Supervisor issue an Order that:

1. Requires compulsory pooling of all tracts and mineral interests within the proposed drilling unit that have not agreed to voluntary pooling;
2. Names the Petitioner as the operator of the proposed drilling unit and the Riverside 32-24 well; and
3. Authorizes the Petitioner to recover certain costs and other additional compensation from the parties subject to the compulsory pooling order.

The Administrative Law Judge determined the Notice of Hearing was properly served and published. No answers to the Petition were filed and no one but the Petitioner appeared at the hearing. The Supervisor designated the hearing to be an evidentiary hearing pursuant to R 324.1205(1)(b) and directed evidence be presented in the form of oral testimony.

In support of its Petition, the Petitioner offered the testimony of Janet E. DeFur, Landman for Petitioner; Terry Thyer, Senior Geologist, Mid-Continent and Michigan, and John Keller, Production Manager, Mid-Continent and Michigan, for the Petitioner. Mr. Thyer was recognized as an expert in petroleum geology and engineering, and Mr. Keller was recognized as an expert in geologic engineering.

#### **I. Drilling Unit**

The spacing of gas wells targeting the Glenwood Formation/Prairie du Chien Group is governed by Special Order No. 1-86. This Order establishes drilling units of 640 acres, more or less, consisting of four contiguous governmental-surveyed quarter sections of land in a square, with allowances being made for the size and shape of the government-surveyed quarter sections. The Petitioner's proposed drilling unit is

described as all of Section 24, T21N, R7W, Riverside Township, Missaukee County, Michigan.

I find that the drilling unit, as proposed in the Petition, is consistent with Special Order No. 1-86; and, as such, it is a proper drilling unit for the proposed well.

## II. Drilling Unit Operator

Ms. DeFur testified the Petitioner owns or controls oil and gas leases covering all but 62.6764 net acres of mineral interests. The Petitioner seeks to be designated as the operator of the Riverside 32-24 well. I find, as a Matter of Fact, the Petitioner is eligible to be designated operator of the Riverside 32-24 well.

## III. Compulsory Pooling

As found, the Petitioner has proposed a proper drilling unit for the Glenwood Formation/Prairie du Chien Group but was unable to obtain the agreement of all mineral and working interest owners to gain its full control of the interests in such unit. The Petitioner may not produce a well on the drilling unit without first obtaining control of all of the oil and gas interests. In cases like this, it is necessary for the Petitioner to request compulsory pooling from the Supervisor. As discussed, a mineral or working interest owner who does not agree to voluntarily pool his, her, or its interest in a drilling unit may be subject to compulsory pooling. 1996 MR 9, R 324.304. The compulsory pooling of an interest must be effectuated in a manner that ensures "each owner ... is afforded the opportunity to receive his or her just and equitable share of the production of the unit." *Id.* In addition to protecting correlative rights, the compulsory pooling must prevent waste. MCL 324.61502. An operator must first seek voluntary pooling of mineral interests within a proposed drilling unit prior to obtaining compulsory pooling through an order of the Supervisor.

All of the owners of oil and gas interests within the proposed drilling unit agreed to voluntarily pool their interests, with the exception of the following 62.6764 net acres of private mineral rights:

<u>OWNER</u>	<u>Net Unleased Acres</u>	<u>Gross Unleased Acres</u>
<b><u>TRACT 1</u></b>		
Millard F. Scott	2.0	80
C. Richard Dillman	0.8333	80
Betsey B. Stone	1.35	80
Priscilla B. Guest	1.35	80
<b><u>Total Unleased Tract 1</u></b>	<b>5.5333</b>	<b>80</b>
<b><u>TRACT 2</u></b>		
Harvey E. Muehlenbeck and Helen Muehlenbeck, h/w	2.223	140
Arthur C. Muehlenbeck and Alma Muehlenbeck, h/w	6.66	140
Maxine Connell Trust or Maxine Connell	4.125	140
W.H. Clock	4.0	140
C. Richard Dillman, Jr.	0.833	140
Dail C. West	1.875	140
<b><u>Total Unleased Tract 2</u></b>	<b>22.216</b>	<b>140</b>
<b><u>TRACT 3</u></b>		
Raymond S. Hunt or his successors: Grace Presbyterian Church, Permian Basin Chapter of Multiple Sclerosis, Muriel S. Hunt	6.0	60
I.W. Hartman	3.33	60
Robert W. Devine	2.5	60
Oren Properties Inc.	4.0	60
<b><u>Total Unleased Tract 3</u></b>	<b>15.83</b>	<b>60</b>
<b><u>TRACT 4</u></b>		
Robert H. Bond	0.83333	40
Raymond S. Hunt or his successors: Grace Presbyterian Church, Permian Basin Chapter of Multiple Sclerosis, Muriel Hunt.8333	0.5333	40
<b><u>Total Unleased Tract 4</u></b>	<b>1.3666</b>	<b>40</b>
<b><u>TRACT 5</u></b>		
Janette M Morrow Estate	0.703125	80
Vernon M. Morrow, apparent successor to Janette M. Morrow	0.263672	80
William Keith Morrow, apparent successor to Janette M. Morrow	0.263672	80
<b><u>Total Unleased Tract 5</u></b>	<b>1.230469</b>	<b>80</b>

<b><u>TRACT 6</u></b>	<b><u>Net Unleased Acres</u></b>	<b><u>Gross Unleased Acres</u></b>
John R. Stewart	5.0	160
Robert F. Lurie	5.0	160
A.C. Stander and Charlotte Stander	5.0	160
<b><u>Total Unleased Tract 6</u></b>	<b>15.0</b>	<b>160</b>
<b><u>TRACT 7</u></b>		
CSJ Oil Properties Limited Partnership	2.3333	40
Robert E. Sole	1.6667	40
<b><u>Total Unleased Tract 7</u></b>	<b>4.0</b>	<b>40</b>
<b><u>UNIT TOTALS</u></b>	<b>62.676369</b>	<b>640</b>

Ms. DeFur's affidavit (Exhibit 2) indicates Petitioner made repeated attempts to lease the mineral interest owners who had not yet voluntarily pooled their interests for the purposes of drilling the Riverside 32-24 well.

Based on the foregoing, I find, as a Matter of Fact:

1. The Petitioner was able to voluntarily pool all but approximately 62.6764 net mineral acres of the proposed 640-acre Glenwood Formation/Prairie du Chien Group drilling unit.
2. Compulsory pooling is necessary to form a full drilling unit, to protect correlative rights of unleased mineral owners, and to prevent waste by preventing the drilling of unnecessary wells.

Now that it has been determined compulsory pooling is necessary and proper in this case, the terms of such pooling must be addressed. When pooling is ordered, the owner of the compulsorily pooled lands or interests (Pooled Owner) is provided an election on how he or she wishes to share in the costs of the project. R 324.1206(4). A Pooled Owner may participate in the project, or in the alternative be "carried" by the operator. If the Pooled Owner elects to participate, he or she assumes the economic risks of the project, specifically, by paying his or her proportionate share of the costs or giving bond for the payment. Whether the well drilled is ultimately a producer or dry hole is immaterial to this obligation. Conversely if a Pooled Owner elects not to participate, the Pooled Owner is, from an economic perspective, "carried" by the operator. Under this option, if the well is a dry hole the Pooled Owner has no financial

obligation because they did not assume any risk. If the well is a producer, the Supervisor considers the risks associated with the proposal and awards the operator compensation, out of production, for assuming all of the economic risks.

In order for a Pooled Owner to decide whether he or she will "participate" in the well or be "carried" by the operator, it is necessary to provide reliable cost estimates. In this regard, the Petitioner must present proofs on the estimated costs involved in drilling, testing, completing, and equipping the proposed well. The Petitioner's Authorization for Expenditure (AFE) form for the Riverside 32-24 well itemizes estimated costs to be incurred in the drilling, completing, testing, equipping, and plugging of the well (Exhibit 10). The estimated costs are \$2,481,642 for drilling; \$1,381,500 for completion; and \$1,034,000 for equipping. The total estimated producing well costs for the Riverside 32-24 well are \$4,897,142. *Id.*

There is no evidence on this record refuting the Petitioner's estimated costs. I find, as a Matter of Fact, the estimated costs are reasonable for the purpose of providing the Pooled Owners a basis on which to elect to participate or be carried. However, I find actual costs shall be used in determining the final share of costs and additional compensation assessed against a Pooled Owner.

The next issue is the allocation of these costs. Part 615 requires the allocation be just and equitable. MCL 324.61513(4). The Petitioner presented a map as evidence showing that the structure substantially underlies each of the four quarter sections comprising the drilling unit (Exhibit 7). The Petitioner requests the actual well costs and production from the well be allocated based on a net mineral acre basis. Established practices and industry standards suggest allocation based upon the ratio of the number of net mineral acres in the tracts of various owners to the total number of net mineral acres in the drilling unit to be a fair and equitable method of allocation of production and costs. Therefore, I find, as a Matter of Fact, utilizing net mineral acreage is a fair and equitable method to allocate to the various tracts in the proposed drilling unit, each tract's just and equitable share of unit production and costs.

The final issue is the additional compensation for risk to be assessed against production attributable to a Pooled Owner who elects to be carried. The administrative rules under Part 615 provide for the Supervisor to assess appropriate compensation for

the risks associated with drilling a dry hole and the mechanical and engineering risks associated with the completion and equipping of wells. 1996 AACRS, R 324.1206(4)(b). The Petitioner, at the hearing, requested additional compensation of 300 percent for drilling costs, 200 percent for completion costs, and 100 percent for equipping costs.

Drilling of the Riverside 32-24 well was commenced on February 25, 2011, and as of the date of hearing, was drilled to a depth of 6,640 feet in the F Salt. The well is projected to reach the top of the Glenwood on approximately April 2, 2011, and reach total depth on approximately April 19, 2011 (Exhibit 11). Mr. Thyer and Mr. Keller testified, after review of well logs, seismic, PdC production and dry holes in the vicinity, and discussing the planned well bore (Exhibits 4, 5, 6, 7, and 9), that the Riverside 32-24 well is still a very risky prospect. There is a dry hole within the vicinity of the Riverside 32-24 well. Even if the well is completed, sometimes the well will not produce sufficient gas to have justified the completion. The Petitioner's testimony indicates the economic success of the completion may not be known for many months, or years, and that all of these factors show the Riverside 32-24 well to be a high-risk venture.

I find that it is just and reasonable for this compulsory pooling order to provide that the Petitioner be allocated additional compensation for drilling, completing, and equipping costs. After the effective date of this Order, the unleased owners will have ample opportunity to make their election to participate or be carried, during the future period of time the Petitioner continues the drilling and attempts the completion and equipping of the well. I find, as a matter of fact, that the risk of the proposed Riverside 32-24 well being a dry hole supports additional compensation from the Pooled Owners of 300 percent of the actual drilling costs incurred. In addition, the mechanical and engineering risks associated with the well support additional compensation of 200 percent of the actual completing and 100 percent of the actual equipping costs incurred. Operating costs are not subject to additional compensation for risk.

#### **CONCLUSIONS OF LAW**

Based on the findings of fact, I conclude, as a matter of law:

1. The Supervisor may compulsorily pool properties when pooling cannot be agreed upon. Compulsory pooling is necessary to prevent waste and protect the correlative rights of the Pooled Owners in the proposed drilling unit. MCL 324.61513(4).
2. This Order is necessary to provide for conditions under which each mineral and working interest owner who has not voluntarily agreed to pool all of his, her, or its interest in the pooled unit may share in the production. 1996 AACCS, R 324.1206(4).
3. The Petitioner is an owner within the drilling unit and, therefore, is eligible to drill and operate the Riverside 32-24 well. 1996 AACCS, R 324.1206(4).
4. The Petitioner is authorized to take from each nonparticipating interest's share of production, the cost of drilling, completing, equipping, and operating the well, plus an additional percentage of the costs as identified in the Determination and Order section of this Order for the risks associated with drilling a dry hole and the mechanical and engineering risks associated with the completion and equipping of the well. 1996 AACCS, R 324.1206(4).
5. The applicable spacing for the proposed drilling unit is 640 acres, more or less, as established by Special Order No. 1-86.
6. The Supervisor has jurisdiction over the subject matter and the persons interested therein.
7. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 AACCS, R 324.1204.



**DETERMINATION AND ORDER**

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that compulsory pooling to form a 640-acre Glenwood Formation/Prairie du Chien Group drilling unit is necessary to protect correlative rights and prevent waste by the drilling of unnecessary wells.

**NOW, THEREFORE, IT IS ORDERED:**

1. A 640-acre Glenwood Formation/Prairie du Chien Group drilling unit is established for all of Section 24, T21N, R7W, Riverside Township, Missaukee County, Michigan. All properties, parts of properties, and interests in this area are pooled into the drilling unit. This pooling is for the purpose of forming a drilling unit.
2. Each Pooled Owner shall share in production and costs in the proportion that their net mineral acreage in the drilling unit bears to the total acreage in the drilling unit.
3. The Petitioner is named Operator of the Riverside 32-24 well. The Operator has commenced the drilling of the Riverside 32-24 well. This pooling Order applies to the drilling of the Riverside 32-24 well only.
4. A Pooled Owner who is an unleased mineral owner shall be treated as a working interest owner to the extent of 100 percent of the interest owned in the drilling unit. Such a Pooled Owner is considered to hold a 1/8 royalty interest, which shall be free of any charge for the costs of drilling, completing, or equipping the well, or for compensation for the risks of the well, or operating the proposed well.
5. A Pooled Owner shall have ten days from the effective date of this Order to select one of the following alternatives and advise the Supervisor and the Petitioner, in writing, accordingly:

a. To participate, by paying to the Operator, within ten days of making the election, the Pooled Owner's share of the estimated costs for drilling, completing, testing, and equipping the well, or by giving bond for the payment of the Pooled Owner's share of such costs promptly upon completion; and authorizing the Operator to take from the remaining  $\frac{7}{8}$  of such Pooled Owner's share of production, the Pooled Owner's share of the actual costs of operating the well; or

b. To be carried, then if the well is put on production, authorize the Operator to take from the remaining  $\frac{7}{8}$  of the Pooled Owner's share of production:

(i) The Pooled Owner's share of the actual cost of drilling, completing, and equipping the well.

(ii) An additional 300 percent of the actual drilling costs, 200 percent of the actual completion costs, and 100 percent of the actual equipping costs attributable to the Pooled Owner's share of production, as compensation to the Operator for the risk of a dry hole.

(iii) The Pooled Owner's share of the actual cost of operating the well.

6. In the event the Pooled Owner does not notify the Supervisor in writing of the decision within ten days from the effective date of this Order, the Pooled Owner will be deemed to have elected the alternative described in Paragraph 5(b). If a Pooled Owner who elects the alternative in Paragraph 5(a) does not, within ten days of making their election, pay their proportionate share of costs or give bond for the payment of such share of such costs, the Pooled Owner shall be deemed to have elected the alternative described in Paragraph 5(b) and the Operator may proceed to withhold and allocate proceeds for costs from the Pooled

Owners' share of production (the remaining 7/8 in the case of an unleased mineral owner) as described in 5(b)(i),(ii), and (iii).

7. For purposes of the Pooled Owners electing alternatives, the amounts of \$2,481,642 for estimated drilling costs (dry hole costs); \$1,381,500 for estimated completion costs; and \$1,034,000 for estimated equipping costs are fixed as well costs. Actual costs shall be used in determining the Pooled Owner's final share of well costs and in determining additional compensation for the risk of a dry hole. If a Pooled Owner has elected the alternative in Paragraph 5(a) and the actual cost exceeds the estimated cost, the Operator may recover the additional cost from the Pooled Owner's share of production (the remaining 7/8 in the case of an unleased mineral owner). Within 60 days after commencing drilling of the well, and every 30 days thereafter until all costs of drilling, testing, completing, and equipping the well are accounted for, the Operator shall provide to the Pooled Owner a detailed statement of actual costs incurred as of the date of the statement; and all costs and production proceeds allocated to that Pooled Owner.
8. All Pooled Owners shall receive the following information from the Operator by no later than the effective date of the Order:
  - a. The Order;
  - b. The AFE; and
  - c. Each Pooled Owner's percent of charges from the AFE if the Pooled Owner were to choose option "a" in Paragraph 5, above.
9. A Pooled Owner shall remain a Pooled Owner only until such time as a lease or operating agreement is entered into with the Operator. At that time, terms of the lease or operating agreement shall prevail over the terms of this Order.
10. The Supervisor retains jurisdiction in this matter.

11. The effective date of this Order is April 15, 2011.

DATED: April 6, 2011



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